Data Sheet
Fujitsu PRIMERGY BX400 S1 Blade Server

Blade Made Easy

Fujitsu PRIMERGY BX Blade Servers meet all the requirements of medium-sized companies as well as the branches and data centers of large companies, especially with their comprehensive offer of services and solutions. They offer a clever alternative in providing an IT infrastructure with high levels of efficiency, flexibility and business continuity. The PRIMERGY BX system family is designed so that the chassis components can be used throughout the family. This means that changing business requirements can be met quickly and easily. Servers, storage and connection blades can be added without any additional cabling effort or administration software. Its modular design gives the PRIMERGY BX Blade Servers considerable advantages, such as high density as well as reliable and dynamic 24x7 operations. The PRIMERGY BX Blade Servers are the ideal choice for today's and tomorrow's data center solutions where reliability, performance and connectivity are important requirements. They can be used for a wide range of applications, starting with web or terminal servers up to high-performance databases. And as business requirements grow, the PRIMERGY BX Blade Servers can be adapted to meet individual requirements and fulfill such needs in a suitable manner.

PRIMERGY BX400 S1

The Fujitsu PRIMERGY BX400 is fully-featured blade system built from the ground up as a user-friendly and versatile IT infrastructure designed for small and medium-sized customers with large computing and storage requirements, including branch offices. The PRIMERGY BX400 simplifies IT operations for the entire lifecycle. Fewer wires, less power consumption and a much smaller footprint: For businesses looking for a smart, affordable alternative to efficiently support their processes, the PRIMERGY BX400 has to be the IT infrastructure of choice. Up to eight server and storage blades are all packed into a surprisingly small enclosure that is as easy to install and manage as it is to use. The modular design makes this blade server infrastructure ideal for use in both the office and data center environments. The system combines leading-edge technology, such as a fully integrated virtual storage appliance, with impressive I/O flexibility and bandwidth known from the PRIMERGY BX900. The PRIMERGY BX400 chassis is available in two different versions. The 6U rack version can be easily integrated into industry standard 19-inch Fujitsu and third-party racks. The floorstand version easily fits underneath a desk in an office and its noise level of 45 dB make it one of the quietest blade servers on the market. Both models can be equipped with the same PRIMERGY BX server, storage and connection blades.

Features and Benefits

Main Features	Benefits
Simplicity itself – The Fujitsu PRIMERGY BX400	
■ The Base Configuration Wizard provides support during the configuration of the system unit and guides the user step-by-step through the menu to start the blade server. ■ The ServerView Dashboard is an intuitive user interface, provides information about the system status and an opportunity to execute basic administrative tasks. ■ The local service panel supplies status information directly via the system LCD display, and provides support during administration, configuration, diagnostics and monitoring.	■ The PRIMERGY BX400 is extremely user-friendly - from start to finish. Easy installation processes and intuitive user interfaces slash the time taken up by daily operating activities and various IT maintenance tasks to a minimum.
Kind to the environment and to your energy bill	
■ Power supply modules with high efficiency levels combined with large fans and airflow channels sharply reduce power consumption and cool the system directly. ■ End-to-end power management helps companies to understand thermal effects more easily and to use energy more efficiently as a result of its intelligent monitoring and controls. With its "Low Noise" Mode, the system reduces power consumption and fan operation so that the unit does not emit more than 45 dB(A) noise. ■ The "Dynamic Power Mode" maximizes the efficiency of power supply units as the required power is automatically modified to system requirements.	■ Energy efficiency is taken into account in every aspect of the PRIMERGY BX400. It reduces electricity bills, eases the burden on air-conditioning systems and even shrinks your IT-related carbon footprint.
Smart, flexible and modular	
■ The system offers an optimized combination of up to eight server and storage blades as well as connection blades in a compact housing (available as rack and floor version). ■ Both versions can be equipped with the latest blade technology and offer a high level of I/O flexibility and a bandwidth as known with the PRIMERGY BX900. ■ PRIMERGY VSX960 offers a fully integrated virtual storage solution for the blade system in order to convert this to a small data center in a box.	■ The module infrastructure offers investment protection for flexible growth scenarios for use in data center and normal office environments.
Attractively priced and low on running costs	
■ Modular upgrade options to protect investments by integrating new technologies in existing environments. ■ A footprint smaller than conventional tower or rack servers reduces space requirements by up to 50%. ■ A user-friendly design reduces the effort and costs involved in setting up network connections, installation and management. ■ The integrated energy management enables better understanding of the power consumption and thermal effects so that tasks can be clarified before they affect system costs and performance.	■ The consolidated design of the PRIMERGY BX400 is more cost-efficient with lower operating costs compared with conventional server, storage and network solutions.

Technical details

Enclosure	
System unit type	6 U chassis for 19-inch rack, or floorstand version
Front bays	8 half height bays for server or storage blades
Midplane	High speed midplane with 3 fabrics
Rear bays	4 x for Connection Blades 4 x for PSU/fan modules
Management Blades	1x hot-plug management blade as standard, redundant management blades as option
Fan configuration	Up to 3 hot plug, redundant rear fan units (2 fans per unit)
Power supply configuration	Up to 4x hot-plug power supply modules (1x as standard)
Operating panel	
Operating buttons	On/off switch ID button
Status LEDs	Power (amber / green) System status (amber / yellow) Identification (blue)
Service display	ServerView Local Service Display for Blade (LSB)
ODD	1 - assinged to server blade by MMB control
USB ports	2 - assigned to server blade by MMB control
Management Blade	
Type of Unit	BX900 MMB S1
LAN / Ethernet (RJ-45)	2 x 1Gb Ethernet
Service LAN (RJ45)	Dedicated Service LAN port for MMB (1Gb Ethernet)
Serial 1 (9-pin)	1 x RS-232-C
USB ports	2 x (at rear side of the system)
Dimensions / Weight	
Floor-stand (W x D x H)	578 x 819 x 366 mm
Rack (W x D x H)	445 x 785 x 267 mm
Mounting Depth Rack	818 mm
Height Unit Rack	6 U
19" rackmount	Yes
Weight	Rack: up to 98 kg / Floorstand: up to 112.5 kg
Weight notes	Fully assembled Actual weight may vary depending on configuration
Rack integration kit	Included in Rack System
Electrical values	
Max. input of single power supply	1200 W / 1785 W (100 V - 240 V)
Power supply configuration note	max. 4 PSU in n, n+1 or n+n redundancy configuration.
Power supply efficiency	92% (at 50% PSU load, CSCI "gold")
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Rated current max.	45 A / 22.5 A (100 V - 240 V)
Electrical value notes	Active power max. value depends on system configuration. For details see Power Configuration Tool. Power plug: non industrial type a connector (100V) e.g. NEMA 5-15P or 5-20P / industrial type b connector (230V) e.g. IEC60309
Environmental	
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296

Environmental

Sound pressure (LpAm)	up to 60.5dB(A) (operating), 45dB(A) operating in Low Noise mode
Sound power (LWAd; 1B = 10dB)	71dB (operating), 62dB (operating in Low Noise mode)
Operating ambient temperature	5 - 35°C
Operating environment	FTS 04230 – Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe

Compliance

Germany	GS
Europe	CE Class A *
USA/Canada	ULc/us FCC Class A
Global	CB RoHS WEEE
Japan	VCCI Class A + JIS 61000-3-2
Australia/New Zealand	C-Tick
Taiwan	BSMI
Compliance notes	There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Server and Storage Blades pluggable into system unit front side

Product Model name	Product Type	Processor quantity support	Max. number per BX400	Memory slots total	Supported capacity RAM (max.)
PRIMERGY BX920 S2	Dual Socket Server Blade (Intel)	1 - 2	8	9	144 GB
	http://docs.ts.fujitsu.com/dl.aspx?id=cfd1622e-9fae-419b-ad1c-91f78c9f93e7				
PRIMERGY BX922 S2	Dual Socket Server Blade (Intel)	1 - 2	8	12	192 GB
	http://docs.ts.fujitsu.com/dl.aspx?id=cb2281f2-b794-422b-aa87-a62dfeb7914c				
PRIMERGY BX924 S2	Dual Socket Server Blade (Intel)	2	8	18	288 GB
	http://docs.ts.fujitsu.com/dl.aspx?id=43070323-fed9-4cfb-83f5-f791be68994a				
PRIMERGY SX910 S1	Storage Blade Tape		4		
	http://docs.ts.fujitsu.com/dl.aspx?id=cc5ba5c8-2c98-4647-b585-db5890f9243c				
PRIMERGY SX940 S1	Storage Blade Disk		4		
	http://docs.ts.fujitsu.com/dl.aspx?id=cabbdb01-8a40-44dd-af4d-50bc074c0ec8				
PRIMERGY SX960 S1	Storage Blade Disk		2		
	http://docs.ts.fujitsu.com/dl.aspx?id=489d2a0c-81f1-4d3e-aaa3-df55ac446930				

Connection Blades (CB) pluggable into system unit rear side

Connection type	Down-link ports	Up-link ports	Max. number per BX400
Eth Switch/IBP 1Gb 36/12	36 x 1 Gb Eth	8 x 1 Gb (RJ45), 4 x 1 Gb (SFP)	4 (CB Slot 1/2 3/4)
http://docs.ts.fujitsu.com/dl.aspx?id=698e96b8-f040-4cd5-93ca-c37d97d07868			
Eth Switch/IBP 1Gb 36/8+2	36 x 1 Gb Eth	8 x 1 Gb (RJ45) , 2 x 10 Gb (SFP+)	4 (CB Slot 1/2 3/4)
http://docs.ts.fujitsu.com/dl.aspx?id=4f316397-847e-4908-ad4f-38376cb1e6b8			
Eth Switch/IBP 10Gb 18/8	18 x 10 Gb Eth	8 x 10 Gb (SFP+)	4 (CB Slot 1/2 3/4)
http://docs.ts.fujitsu.com/dl.aspx?id=935c959f-4c36-4bf3-8c34-32118330daba			
FC Switch 8Gb Brocade 26 Port Enterprise	18 x 8 Gb FC	8 x 4/8 Gb (SFP/SFP+)	2 (CB Slot 3/4)
http://docs.ts.fujitsu.com/dl.aspx?id=a499f935-abd8-47e3-b836-f16da5d81c70			
FC Switch 8Gb Brocade 14 Port	18 x 8 Gb FC	8 x 4/8 Gb (SFP/SFP+)	2 (CB Slot 3/4)
http://docs.ts.fujitsu.com/dl.aspx?id=a499f935-abd8-47e3-b836-f16da5d81c70			
FC Switch 8Gb Brocade 26 Port	18 x 8 Gb FC	8 x 4/8 Gb (SFP/SFP+)	2 (CB Slot 3/4)

Connection Blades (CB) pluggable into system unit rear side

Connection type	Down-link ports	Up-link ports	Max. number per BX400
http://docs.ts.fujitsu.com/dl.aspx?id=a499f935-abd8-47e3-b836-f16da5d81c70			
IB Switch 40Gb 18/18 http://docs.ts.fujitsu.com/dl.aspx?id=2f383313-f3a9-4791-b30b-dcb2f8add4de	18 x 40 Gb IB	18 x 40 Gb (QSFP)	1 (CB Slot 3/4)
FC Pass Thru 8Gb 18 Port http://docs.ts.fujitsu.com/dl.aspx?id=9da29262-2992-48ae-8986-b9f45f030298	18 x 8 Gb FC	18 x 4/8 Gb (SFP/SFP+)	2 (CB Slot 3/4)
Eth Switch/IBP 1Gb 18/6 http://docs.ts.fujitsu.com/dl.aspx?id=5504a9cf-308c-4d0a-a16a-852fd9ec527e	18 x 1 Gb Eth	6 x 1 Gb (RJ45)	4 (CB Slot 1/2 3/4)

Warranty

Standard Warranty	3 years
Service level	On-site Service (depending on country)

Maintenance and Support Services - the perfect extension

Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY BX400 S1, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY BX400 S1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/Primergy

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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CONTACT
FUJITSU LIMITED
Mies-van-der-Rohe-Straße 8
80807 München
Germany
Website: www.ts.fujitsu.com
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